

# Washington County

## Job Description



<b>Title:</b>	GIS Analyst	<b>Code:</b>	
<b>Division:</b>	GIS Operations	<b>Effective Date:</b>	03/10
<b>Department:</b>	Public Works	<b>Last Revised:</b>	09/13
<b>Career Serv:</b>	Yes	<b>FLSA:</b>	Yes

### GENERAL PURPOSE

Designs, creates, and edits and maintains spatial data. Performs advanced modeling techniques, complex spatial analysis and the integration of multiple databases.

Compiles, drafts, digitizes, codes, queries, edits, and prepares computer generated maps.

Performs a variety of advanced, complex, technical duties related to the development or creation of digitized maps through a geographic information system (GIS) using Esri GIS products: ArcGIS or related computer program application(s).

### SUPERVISION RECEIVED

Works under the general supervision of the GIS Supervisor.

### SUPERVISION EXERCISED

Provides support to county-wide end users accessing GIS system. Provides GIS technical assistance to County staff.

### ESSENTIAL FUNCTIONS

Assists in providing support in the development, maintenance, and organization of geographic data for use by internal users and the public through custom GIS applications.

Supports the design and development of web mapping and mobile GIS applications.

Conducts field exercises utilizing GPS equipment for various County parcels, roads, structures, vegetation, etc.; may perform general field survey duties as needed; utilizes ArcGIS, AutoCad, and related GIS software, plotter and GPS equipment to create digitized maps.

Assembles data from GPS, local surveys, utilities, state and federal agencies, and other entities for mapping and analysis; completes data editing and centralizes data to ensure compatibility with County database.

Researches records of plats and property descriptions to determine property location, information, and size; digitizes appropriate changes or additions to existing maps; coordinates with Recorder's office to resolve issues related to property descriptions.

Performs GIS system and file backup dealing with county/city systems such as water, sewer, storm drains, streets, unpaved county roads, electrical, weed/mosquito infestations, etc.; maps and plots locations of lines, valves, manholes, lift stations, etc. as installed.

Reproduces maps, surveys, engineering drawings, graphics, and data base reports from GIS system and related software; operates computer to analyze, compose, and convert mapping data.

Assists to maintain County GeoDatabase; participates in the development and maintenance of GIS databases, posting changes, verifying and reconciling various GeoDatabase versions, etc.; recommends procedures to enable access privileges; oversees activity and process for updating county-wide spatial data.

Maintains various data/GIS layers within the system and utilizes ArcGIS to effectively update the system.

Performs ongoing and daily problem solving; researches command chains within the GIS system; makes changes in command sequences as needed to remedy problems and maintain the system.

Receives project assignments as requested by various county departments; evaluates project timelines and assists to establish operational tasks; analyzes various tasks to determine opportunity to automate or combine steps and processes; utilizes custom software to streamline database management.

Produces custom maps upon request from the public, cities and county officials; utilizes various mapping and cartography skills to finalize cartographic hard copy maps; creates various layers of maps illustrating targeted areas of interest.

Engages in various project processes involving metadata, spatial analysis, GPS information gathering, data conversions, Geoprocessing, Geocoding, and various aspects of programming; manages ArcGIS Services, etc.; performs raster analysis to create aerial imagery; administers Geocortex line mapping sites; collects and compiles information to comply with GASB requirements.

Installs, administers and supports Esri ArcGIS Server software; related web services and desktop software and applications.

Performs related duties as required.

#### MINIMUM QUALIFICATIONS

1. Education and Experience:

A. Graduation from college with a bachelor's degree in GIS, geography, cartography, computer science or related field;

AND

B. One (1) years of related experience;

OR

C. An equivalent combination of education and experience.

2. Knowledge, Skills, and Abilities:

Comprehensive knowledge of GIS principles, techniques, and methods required for development, operation and maintenance; knowledge of functions and interrelationships of equipment, operating systems, applications software, and communications components used in a GIS. Working knowledge of computer operating systems including Windows 98/NT/2000/XP/Vista; laws, codes, and regulations related to the development and implementation of GIS; state cartography certification requirements; ESRI related programs, technical tools and equipment; complex math and computer aided engineering; technical tools and equipment associated with drafting and cartography; mapping tools (Python, ArcGIS Web Mapping APIs, ArcIMS) and scales, mapping software and methods (ArcGIS, ArcGIS Online); various geographic databases, including State of Utah, USGS digital line graphics, surveying practices including GPS point retrieval, State Plane Coordinate Systems, GLO map interpretation and Area Reference Plat (ARP) interpretation; quality assurance and control methods; county geography; legal documents and terminology; functions of the office of County Recorder. Some knowledge of inter-relationships of various federal, state and local agencies which impact upon mapping activities of the County.

Skill in the use of plotters, digitizers and various software applications including, ESRI applications, ArcGIS, Building Geodatabases, etc.; motorized vehicles and operation of GPS equipment. Skill in reading, understanding, developing, manipulating, and analyzing geographic information. Experience with editing ArcSDE enterprise geodatabases. Strengths in cartography, geography, drafting, surveying, web development and database administration. Innovative design skills and technical ability are essential.

Ability to perform complex digital mapping and mapping evaluation; read and understand legal documents; working knowledge of mathematical computations; read and understand computer printouts; recognize and solve problems related to hardware and software applications; excellent analytical and problem-solving skills; communicate technical information effectively, verbally and in writing; perform mechanical duties related to installations of PC's, printers, hardware and related items; operate calculators and standard

office equipment; work independently; lift 50 lbs; develop effective working relationships with supervisors, fellow employees, and the public.

3. Special Qualifications:

Must possess a valid Utah driver's license.

4. Work Environment:

Incumbent of the position performs in a typical office setting with appropriate climate controls. Tasks require variety of physical activities, not generally involving muscular strain, such as walking, standing, stooping, sitting, reaching, talking, hearing, and seeing. Rapid work speed required to perform keyboard operations. Common eye, hand, finger, leg, and foot dexterity exist. Mental application utilizes memory for details, verbal instructions, emotional stability, discriminating thinking and guided problem solving.

\*\*\*\*\*

**Disclaimer:** The above statements describe the general nature, level, and type of work performed by the incumbent(s) assigned to this classification. They are not intended to be an exhaustive list of all responsibilities, demands, and skills required of personnel so classified. Job descriptions are not intended to and do not imply or create any employment, compensation, or contract rights to any person or persons. Management reserves the right to add, delete, or modify any and/or all provisions of this description at any time as needed without notice. This job description supersedes earlier versions.